



U.S. Department
of Transportation
Pipeline and
Hazardous Materials
Safety Administration

East Building, PHH-23
1200 New Jersey Ave., SE
Washington, D.C. 20590

COMPETENT AUTHORITY CERTIFICATION
FOR A NON-FISSILE OR FISSILE EXCEPTED
URANIUM HEXAFLUORIDE PACKAGE DESIGN
CERTIFICATE USA/0679/H(U)-96, REVISION 3

REVALIDATION OF UNITED KINGDOM COMPETENT AUTHORITY CERTIFICATE GB/3570/H(U)-96

This certifies that the radioactive materials package design described below has been certified by the Competent Authority of the United States as meeting the regulatory requirements for a packaging for non-fissile or fissile excepted uranium hexafluoride as prescribed in the regulations of the International Atomic Energy Agency¹ and United States of America² regulations.

1. Package Identification - 48X or 48Y cylinders with blanket-type thermal protection (BTP).
2. Package Description and Authorized Contents - as described in United Kingdom Certificate of Competent Authority GB/3570/H(U)-96, Issue 2 (attached).

Cylinders transported under this certificate must have been designed and manufactured in compliance with the ANSI N14.1 standard in effect at time of manufacture and be operated, maintained and handled in accordance with the ANSI N14.1 standard in effect at time of shipment.

3. General Conditions -
 - a. Each user of this certificate must have in his possession a copy of this certificate and all documents necessary to properly prepare the package for transportation. The user shall prepare the package for shipment in accordance with the documentation and applicable regulations.
 - b. Each user of this certificate, other than the original petitioner, shall register his identity in writing to the Office of Hazardous Materials Technology (DHM-23), Pipeline and Hazardous Materials Safety Administration, U.S. Department of Transportation, Washington, D.C. 20590-0001.
 - c. This certificate does not relieve any consignor or carrier from compliance with any requirement of the Government of any country through or into which the package is to be transported.
 - d. Records of Quality Assurance activities required by Paragraph 310 of the IAEA regulations¹ shall be maintained and made available to the authorized officials for at least three years after the last shipment authorized by this certificate. Consignors and consignees in the United States exporting or importing shipments under this certificate shall satisfy the requirements of Subpart H of 10 CFR 71.

¹ "TS-R-1 (ST-1, Revised), Regulations for the Safe Transport of Radioactive Material, 1996 Edition (Revised)," published by the International Atomic Energy Agency (IAEA), Vienna, Austria.

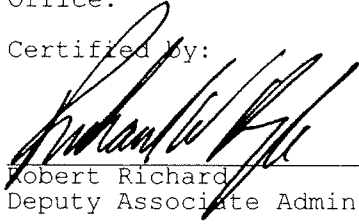
² Title 49, Code of Federal Regulations, Parts 100 - 199, United States of America.

CERTIFICATE USA/0679/H(U)-96, REVISION 3

4. Marking and Labeling - The package shall bear the marking USA/0679/H(U)-96 in addition to other required markings and labeling.
5. Expiration Date - This certificate expires on May 31, 2009.

This certificate is issued in accordance with paragraph 805 of the IAEA Regulations and Section 173.420 of Title 49 of the Code of Federal Regulations, in response to the March 18, 2008 petition by Honeywell, Metropolis, IL and in consideration of other information on file in this Office.

Certified by:



Robert Richard
Deputy Associate Administrator For Hazardous Materials Safety

APR 18 2008

(DATE)

Revision 3 - extension of United Kingdom Certificate of Approval No.
GB/3570/H(U)-96, Issue 2, for ANSI N14.1 compliant cylinders.



Reference: GB/3570/H(U)-96

Issue 2

Page 1 of 7 pages

Certificate of Approval of Package Design for the Carriage of Radioactive Materials

THIS IS TO CERTIFY that the Secretary of State for Transport being, for the purposes of the Regulations of the International Atomic Energy Agency, the Competent Authority of Great Britain in respect of inland surface transport and of the United Kingdom of Great Britain and Northern Ireland in respect of sea and air transport and the Department of the Environment for Northern Ireland being the Competent Authority of Northern Ireland in respect of inland surface transport, have approved the Package design as specified in section 1 of this certificate, as applied for by British Nuclear Fuels plc (see section 6)

as Type H(U)-96

by all modes

Packaging Identification: 48X or 48Y Hex Package with BTP

Packages manufactured to this design meet the requirements of the regulations and codes on page 2, relevant to the mode of transport, subject to the following general condition and to the conditions in the succeeding pages of this certificate.

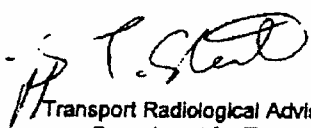
In the event of any alteration in the composition of the package, the package design, the quality assurance programme(s) associated with the package or in any of the facts stated in the application for approval, this certificate will cease to have effect unless the Competent Authority is notified of the alteration and the Competent Authority confirms the certificate notwithstanding the alteration.

Expiry Date: This certificate cancels all previous issues, and is valid until the end of May 2007 (see section 6)

COMPETENT AUTHORITY IDENTIFICATION MARK:

Type H(U)
GB/3570/H(U)-96




Transport Radiological Adviser
Department for Transport
Great Minster House
76 Marsham Street
London SW1P 4DR

*On behalf of the Secretary of State for Transport,
and the Department of the Environment for Northern Ireland*

This certificate does not relieve the consignor from compliance with any requirement of the government of any country through or into which the package will be transported.

REGULATIONS AND CODES OF PRACTICE GOVERNING THE TRANSPORT OF RADIOACTIVE MATERIALS
INTERNATIONAL

International Atomic Energy Agency (IAEA)

TS-R-1. Regulations for the Safe Transport of Radioactive Materials 1996 Edition (Revised)

International Maritime Organisation (IMO)

International Maritime Dangerous Goods (IMDG) Code (Amdt. 31-02);

International Civil Aviation Organisation (ICAO)

Technical Instructions for the Safe Transport of Dangerous Goods by Air. 2003-2004 Edition

United Nations Economic Commission for Europe (UNECE)

European Agreement concerning the International Carriage of Dangerous Goods by Road (ADR). 2003 Edition

Intergovernmental Organisation for International Carriage by Rail (OTIF)

Convention concerning International Carriage by Rail (COTIF) Appendix B. Uniform Rules concerning the Contract for International Carriage of Goods by Rail (CIM) Annex 1 Regulations concerning the International Carriage of Dangerous Goods by Rail (RID). 2003 Edition

UNITED KINGDOM

ROAD

GREAT BRITAIN ONLY.

The Radioactive Material (Road Transport) (Definition of Radioactive Material) Order 2002, SI 2002 No. 1092;

The Radioactive Material (Road Transport) Regulations 2002, SI 2002 No. 1093.

The Radioactive Material (Road Transport) (Amendment) Regulations 2003, SI 2003 No 1867.

NORTHERN IRELAND ONLY.

The Radioactive Substances (Carriage by Road) Regulations (Northern Ireland) 1983, SR 1983 No 344; The Radioactive Substances (Carriage by Road) (Amendment) Regulations (Northern Ireland) 1986, SR 1986 No 61.

RAIL

GREAT BRITAIN ONLY.

The Carriage of Dangerous Goods and Use of Transportable Pressure Equipment Regulations 2004, SI 2004 No 568.

SEA

British registered ships. All other ships whilst in United Kingdom territorial waters. The Merchant Shipping (Dangerous Goods and Marine Pollutants) Regulations 1997, SI 1997 No 2367; Merchant Shipping Notice No MSN 1772(M), "The Carriage of Dangerous Goods and Marine Pollutants in Packaged Form - Amendment 31-02 to the International Maritime Dangerous Goods (IMDG) Code".

AIR

The Air Navigation Order 2000, SI 2000 No 1562. The Air Navigation (Dangerous Goods) Regulations 2002, SI 2002 No 2786.

1. PACKAGE DESIGN SPECIFICATION

The Package Design Specification shall be in accordance with BNFL's Design Safety Case (Safety Analysis Report) for 48 inch Hex Cylinders, reference BNFL Transport Report No. 111, Issue 4 dated 19 November 2004, and Control Sheet for Documents within Transport Report 111, Issue 5 dated 16 December 2004, and modifications to the package design approved by the authority named on page 1 of this certificate under the established modifications procedure.

1.1 Specification of Design

Design No.	Title (number of components)	Drawing / Drawing List	Issue
3570	Outer / Blanket Thermal Protector (BTP)/ One	Cogema Specs. ref. 5314-A-3 & 5314-A-4	Rev 1
	Inner / 48 X or 48Y hex cylinder/ One	See ANSI N14.1 Figures 8 & 9	All

1.2 Authorised Contents

Solid, non-fissile or fissile excepted, uranium hexafluoride. The quantity shall be limited as specified in the following table:

Cylinder type	Minimum quantity (kg UF ₆) (Full cylinder)	Maximum quantity (Kg UF ₆) (Full cylinder)	Maximum quantity (kg UF ₆) (Heel cylinder)
48X	9062	9539	148.3
48Y	11875	12501	197.75

1.3 Package Dimensions and Weights

- a) Nominal Dimensions: 48X - 1219 mm diameter x 2940 mm long, 48Y - 1219 mm diameter x 3727 mm long (see section 5 for package illustration).
- b) Nominal gross weight: 48X - 11657 kg, 48Y - 14951 kg.
Maximum permissible gross weight: 48X & 48Y - 15300 kg

2. USE OF PACKAGE**2.1 Use of packaging**

- a) The package shall be prepared, inspected, filled, closed, tested and operated in accordance with ANSI N14.1 or ISO 7195, and Section 4 and Appendix F of TR 111 Issue 4 (see paragraph 1 of this certificate).

- b) The packaging shall be maintained in accordance with the Inspection, Maintenance and Repair procedures specified in ANSI N14.1 or ISO 7195, and Appendix F of TR 111, Issue 4 (see paragraph 1 of this certificate).

2.2 Actions prior to shipment

Administrative controls shall ensure that the contents are in accordance with section 1 of this certificate, and that the consignor and consignee hold a copy of the instructions on the use of the packaging.

2.3 Emergency Arrangements

a) Road, Rail and Airports in GB

(i) RADSAFE member

In the event of an emergency the procedures set out in RADSAFE (the nuclear industry transport emergency plan) shall apply. The police shall be informed that RADSAFE has been initiated.

(ii) Non RADSAFE member

Before shipment takes place, the consignor shall have drawn up suitable emergency plans, copies of which shall be supplied to the UK Competent Authority on demand. In the event of an emergency these emergency plans shall be initiated and the police informed.

b) Sea

In the event of an emergency, the procedure set out in the IMDG Code as quoted on page 2 of this certificate shall apply.

- c) If RADSAFE, the consignor's own, or other approved emergency plans cannot be initiated, for any reason, then the police shall be informed immediately and requested to call the local NAIR (National Arrangements for Incidents involving Radioactivity) establishment.

2.4 Ambient temperature range for package design

-40°C to +38°C

3. QUALITY ASSURANCE

3.1 Quality assurance programmes applicable to this design are:

- a) as specified in the BNFL "Company Transport Arrangements for Radioactive Material Transport"; and
- b) The BNFL's International Transport and Pacific Nuclear Transport Ltd - Management Systems Manual (Spent Fuel Services); and

- c) any other quality assurance programmes associated with the design, manufacture, testing, documentation, use, maintenance and inspection, and for transport and in-transit storage operations, which must also comply with national or international standards for quality assurance which are acceptable to the authority named on page 1 of this certificate.
- 3.2 No alterations shall be made to the quality assurance programmes associated with this design and approved by the authority named on page 1 of this certificate unless that alteration has the prior approval of said authority, or it falls within the agreed change control procedures of that programme.
- 3.3 No quality assurance programme shall be used at any stage of the design, manufacture, testing, documentation, use, maintenance and inspection, and for transport and in-transit storage operations, unless said programme forms part of or is the quality assurance programme approved by the authority named on page 1 of this approval certificate.

4. ADMINISTRATIVE INFORMATION

4.1 Other related certificates (alternative radioactive contents)

This certificate forms the base approval of this design. No other related UK certificates based on the 3570 exist at the time of compilation of this design approval certificate.

4.2 Additional Technical Data / Information

At the time of compilation of this design approval certificate, The Ionising Radiations Regulations 1999, SI 1999 No 3232 and Approved Code of Practice apply, with regard to radiation protection, to all modes of transport and The Dangerous Substances in Harbour Areas Regulations 1987, SI 1987 No 37, apply in UK Ports.

4.3 Shipment Approval

Not required.

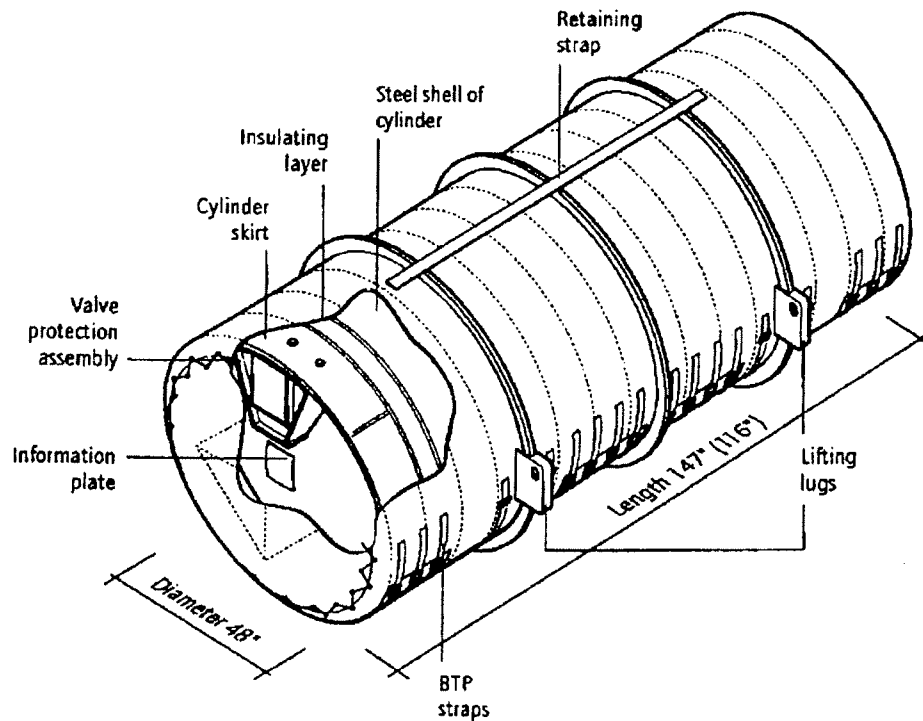
4.4 Renewal of Certificates

If the period of validity is required to be extended, application shall be made at least six weeks in advance of expiry.

5. PACKAGE ILLUSTRATION

Metric Dimension Table (mm)		
Cylinder Type	Diameter	Length
48 Y	1219	3727
48 X (In brackets)	1219	2940

All dimensions are approximate



48Y(48X) UF6 Cylinder with Blanket Thermal Protection

Reference: GB/3570/H(U)-96

Issue 2

Page 7 of 7 pages

6. CERTIFICATE STATUS

Design Approval issued to:-

British Nuclear Fuels plc
Nuclear Utilities Business Group
Risley
Warrington
Cheshire
WA3 6AS

Issue No.	Date of Issue	Date of Expiry	Reason for Revision
1	28 May 2004	End May 2007	New approval
2	As stated on page 1 of this certificate	End May 2007	DSR raised to issue 4

Department for
Transport

Mr Garry Owen
International Nuclear Services Ltd
Package Approvals Section
BNFL Transport
H370 Hinton House
Risley
Warrington
Cheshire
WA3 6AS

J.T STEWART
TRANSPORT RADIOLOGICAL ADVISER
RADIOACTIVE MATERIALS TRANSPORT DIVISION
DEPARTMENT FOR TRANSPORT,
ZONE 2/24
GREAT MINSTER HOUSE
76 MARSHAM STREET
LONDON
SW1P 4DR

DIRECT LINE: 020 7944 5777
FAX: 020 7944 2187
GTN Code: 3533
E-MAIL: jim.stewart@dft.gsi.gov.uk

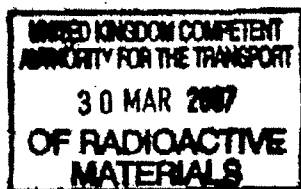
WEB SITE: www.dft.gov.uk

OUR REF: 070328-3570HU-Ext WJ
YOUR REF:
28 MARCH 2007

DESIGN APPROVAL GB/3570/H(U)-96 Issue 2

UK Competent Authority approval is granted to extend the validity of the above certificate to end of May 2008 in accordance with your request dated 27 March 2007.

All other terms and conditions of the Certificate of Approval, subject to the Regulations overleaf, remain unchanged.



A handwritten signature in black ink, appearing to read 'J. T. Stewart', written over a horizontal line.

J. T. STEWART
Transport Radiological Adviser
Department for Transport
Great Minster House
76 Marsham Street
London SW1P 4DR

*On behalf of the Secretary of State for Transport,
and the Department of the Environment for Northern Ireland*

Department for
Transport

Mr Garry Owen
International Nuclear Services Ltd
Package Approvals Section
BNFL Transport
H370 Hinton House
Risley
Warrington
Cheshire
WA3 6AS

J.T STEWART
TRANSPORT RADIOLOGICAL ADVISER
RADIOACTIVE MATERIALS TRANSPORT DIVISION
DEPARTMENT FOR TRANSPORT,
ZONE 2/24
GREAT MINSTER HOUSE
76 MARSHAM STREET
LONDON
SW1P 4DR

DIRECT LINE: 020 7944 5777
FAX: 020 7944 2187
GTN CODE: 3533
E-MAIL: jim.stewart@dft.gsi.gov.uk

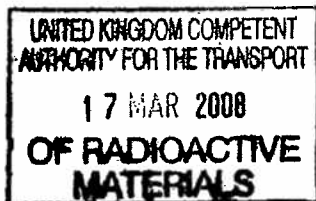
WEB SITE: www.dft.gov.uk

OUR REF: 080317-3570HU-Ext2 WJ
YOUR REF:
17 MARCH 2008

DESIGN APPROVAL GB/3570/H(U)-96 Issue 2

UK Competent Authority approval is granted to extend the validity of the above certificate to end of May 2009 in accordance with your request dated 27 February 2008.

All other terms and conditions of the Certificate of Approval, subject to the Regulations overleaf, remain unchanged.



A handwritten signature in black ink, appearing to read 'J. T. Stewart'.

J. T. STEWART
Transport Radiological Adviser
Department for Transport
Great Minster House
76 Marsham Street
London SW1P 4DR

*On behalf of the Secretary of State for Transport,
and the Department of the Environment for Northern Ireland*

REGULATIONS AND CODES OF PRACTICE GOVERNING THE TRANSPORT OF RADIOACTIVE MATERIALS

INTERNATIONAL

International Atomic Energy Agency (IAEA)

TS-R-1 Regulations for the Safe Transport of Radioactive Materials 2005 Edition.

International Maritime Organisation (IMO)

International Maritime Dangerous Goods (IMDG) Code Amendment 33-06.

International Civil Aviation Organisation (ICAO)

Technical Instructions for the Safe Transport of Dangerous Goods by Air 2007-2008 Edition.

United Nations Economic Commission for Europe (UNECE)

European Agreement concerning the International Carriage of Dangerous Goods by Road (ADR) 2007 Edition.

Intergovernmental Organisation for International Carriage by Rail (OTIF)

Convention concerning International Carriage by Rail (COTIF) Appendix C. Regulations concerning the International Carriage of Dangerous Goods by Rail (RID) 2007 Edition.

UNITED KINGDOM

ROAD

GREAT BRITAIN ONLY.

The Carriage of Dangerous Goods and Use of Transportable Pressure Equipment Regulations 2007, SI 2007 No 1573.

NORTHERN IRELAND ONLY.

The Radioactive Substances (Carriage by Road) Regulations (Northern Ireland) 1983, SR 1983 No 344. The Radioactive Substances (Carriage by Road) (Amendment) Regulations (Northern Ireland) 1986, SR 1986 No 61.

RAIL

GREAT BRITAIN ONLY.

The Carriage of Dangerous Goods and Use of Transportable Pressure Equipment Regulations 2007, SI 2007 No 1573.

SEA

British registered ships. All other ships whilst in United Kingdom territorial waters. The Merchant Shipping (Dangerous Goods and Marine Pollutants) Regulations 1997, SI 1997 No 2367; Merchant Shipping Notice No MSN 1806 M, "The Carriage of Dangerous Goods and Marine Pollutants in Packaged Form - Amendment 33-06 to the International Maritime Dangerous Goods (IMDG) Code".

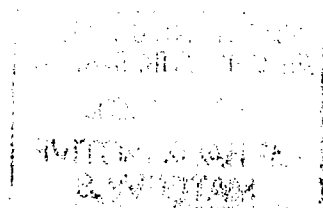
AIR

The Air Navigation Order 2005, SI 2005 No 1970. The Air Navigation (Dangerous Goods) Regulations 2002, SI 2002 No 2786. The Air Navigation (Dangerous Goods) (Amendment) Regulations 2007, SI 2007 No 28.

NOTES

Any questions relating to this Certificate should be addressed to:

The Transport Radiological Adviser,
Department for Transport,
Great Minster House,
76 Marsham Street, London SW1P 4DR.
Telephone 020 7944 5777.
Fax 020 7944 2187.





U.S. Department
of Transportation

Pipeline and
Hazardous Materials
Safety Administration

East Building, PHH-23
1200 New Jersey Avenue SE
Washington, D.C. 20590

CERTIFICATE NUMBER: USA/0679/H(U)-96, Revision 3

ORIGINAL REGISTRANT(S):

Mr. Richard Allshouse
Supervisor, Quality Assurance
Honeywell
Route 45 North
P.O. Box 430
Metropolis, 62960
USA

REGISTERED USER(S):

Mr. Blake Williams
Director, Spent Fuel Services
Edlow International Company
460 Silverberry Lane
Sugar Hill, 32518
USA

Mr. Scott Murray
Manager, Facility Licensing
Global Nuclear Fuels - Americas
3901 Castle Hayne Road
Mail Code K-84
Wilmington, 28401
USA

Mr. Phillip Ollis
Global Nuclear Fuels - Americas
3901 Castle Hayne Road
Mail Code K-84
Wilmington, 28401
USA

Mr. Michael Buckner
Customer Service and Product Scheduling
United States Enrichment Corporation
Paducah Gaseous Diffusion plant
P.O. Box 1410
5600 Hobbs Road
Paducah, 42002-1410
USA

Mr. Ben Dekker
Urenco
Urenco Nederland B.V.
P.O. Box 158
NL-7600 AG Almelo
,
THE NETHERLANDS

Ms. Franchone Oshinowo
Vice President of Operations
Edlow International Company
1666 Connecticut Ave, N.W.
Suite 201
Washington, 20009
USA

Mr. Don McCarty
Packaging and Transportation
United States Enrichment Corporation
P.O. Box 628
Piketon, 45661
USA

Mr. Darren Condrey
Transport Logistics International
Transport Logistics International
4000 Blackburn Lane
Suite 250
Burtonsville, 20866
USA

Mr. Mark Lambert
Transport Logistics International
Transport Logistics International
4000 Blackburn Lane
Suite 250
Burtonsville, 20866
USA

Richard Montgomery
Nuclear Criticality Safety & Shipping Containers
Areva
1724 Mount Athos Road
P.O. Box 11646
Lynchburg, VA 24506-1646

Gareth Hill
Radioactive Materials Transport Manager
Urenco
Capenhurst
Chester
CH16ER
,
United Kingdom

Ms. Catherine Green
Manager, Transportation and Security
Cameco
Fuel Services
One Eldorado Place
Port Hope, L1A3A1
CANADA

Ms. Catherine Anne
Director of Transport Operations
Areva
7135 Minstrel Way
Suite 300
Columbia, 21045
USA

Garry Owen
Package Approvals Section
British Nuclear Fuels plc
British Nuclear Group
H370 Hinton House
Risley
Warrington, Cheshire, WA3 6AS
England

Mr. Jim Davis
Areva
2101 Horn Rapids Road
Richland, WA 99352

Mr. Charlie Holman
Areva
P.O. Box 11646
Lynchburg, VA 24506-1646

Mr. Mark Campbell
Edlow International Company
3901 Castle Hayne Rd.
M/C K01
Wilmington, 28402
USA

Ms. Marilena Conde
Vice President, Marketing and Administration
Edlow International Company
1666 Connecticut Ave, N.W
Suite 201
Washington, 20009
USA